

Bmk. No. A-36  
First Assistant Engineer, WJ-4742-11

#### MAJOR DUTIES

Serves as First Assistant Engineer on an automated, diesel powered, seagoing hopper dredge. In the absence of the Assistant Chief Engineer, or for training purposes, assumes the duties of that position. When assigned, incumbent will be in charge of the Engine Department during tie-up periods. Performs the following duties:

1. As required, stands regularly scheduled watches in the central control/monitor room of the engine room. At prescribed intervals makes routine inspection of all engineer spaces and equipment including dredge pumps, bow thruster, steering gear and emergency areas. Starts, stops and adjusts engine room equipment as necessary. Observes pressure and temperature gauges and alarms and listens for sounds which indicate abnormal operating conditions. Makes regular periodic inspection of all operating machinery to insure proper functioning. Maintains a log of operations on assigned watch.

2. Makes routine repairs to operating machinery during assigned watch. Supervises and/or performs the operation, routine repair and maintenance of all engine room equipment and assists Chief Engineer and Assistant Engineer with major repairs. Is responsible for insuring that all tests and analyses are conducted in connection with the operation of machinery.

3. Installs, maintains, tests and repairs AC and DC electrical systems, equipment, components, converters, safety devices, wiring and controls, switchboards and consoles. Utilizes test equipment, wiring diagrams and schematics to troubleshoot and make repairs. Inspects and services pilothouse and engine room controls, gyrocompass and steering, fire detection, ventilation refrigeration, lighting, emergency and communication systems. Is responsible for insuring that all tests and analyses are conducted in connection with the operation of the Engine Department.

4. Reviews the work of Second Assistant Engineers, Third Assistant Engineers and Junior Engineers by visual inspection of engine room equipment, to insure proper operation and servicing of all equipment. Instructs subordinate personnel in safe work methods and procedures in the utilization of all prescribed safety equipment. Directs the keeping of logs and charts covering the operation of equipment, progress of work, and consumption of fuel and water. Incumbent performs a variety of personnel management tasks such as approving leave for short periods, participating in performance evaluations, recommending disciplinary actions, adjusts informal complaints, etc.

Provides equal employment opportunity for all employees supervised regardless of race, color, religion, sex, handicap, age, or national origin; affords minorities and women full consideration in employment and personnel policies and practices. Is responsible for the safety of personnel and for complying with and enforcing all applicable safety regulations and prescribed maritime practices to minimize injury to personnel and damage to property.

Performs other duties as assigned.

#### SKILLS AND KNOWLEDGES

Must possess license for 1st Assistant Engineer and Assistant Chief Engineer license when acting in that capacity, for diesel-powered, self-propelled, seagoing vessels of appropriate horsepower. Must possess the ability to understand the principles of operation of an automated engine room maintenance management system. Must be able to operate and maintain marine machinery and tools. Has a basic working skill of welding.

#### RESPONSIBILITY

Works under the general supervision of the Chief Engineer who makes functional and specific job assignments from time to time. Minor and routine repairs are subject to spot check upon completion, but major repairs are subject to close review while in progress and upon completion. Such repairs are spot checked during various stages of the work. Major parts of equipment found to be questionable from the standpoint of replacement because of cost, man-hours involved, etc., are referred to supervisor for decision. Overall performance is evaluated in terms of performance appraisal standards established by the supervisor.

#### WORKING CONDITIONS

Incumbent is exposed to abnormal heat, dirty and greasy equipment, and moving machinery. Is subject to burns by hot pipes or escaping steam. There is the constant hazard of boat traffic and, in the event of a collision, there is the danger of being thrown against moving equipment, and the danger of drowning if the vessel takes in water. Incumbent works regularly in areas where noise exceeds 80 decibels. Incumbent is exposed to the effects of paints, acids and solvents.

#### PHYSICAL DEMANDS

Incumbent is required to exert moderate to heavy physical effort in handling engine room equipment. Incumbent must possess color perception in order to perform troubleshooting and repair work on the full range of equipment